

- 3 -

Amendments to Claims

1-4. (Cancelled)

5. (Currently Amended) A method of extending operating a fuel cell power plant having a water accumulator, to extend time before water in [(an)] said accumulator freezes within a fuel cell power plant in an ambient below freezing temperature of water, comprising:

5 completely insulating said accumulator with first vacuum insulation panels;
providing a first keep-warm heater between said accumulator and said first vacuum insulation panels;
providing an auxiliary dc power source selected from (a) a battery and (b) a supercapacitor, completely insulated with second vacuum insulation panels and
10 having a second keep-warm heater between said source and said second vacuum insulation panels; and
providing power from said source to said second keep-warm heater to maintain said source at or above a temperature at which said source has about half of its power capacity; and
15 providing power from said source to said first keep-warm heater whenever the temperature of said accumulator approaches freezing temperature of water.

6. (Original) A fuel cell power plant, comprising:

a stack of fuel cells, each cell having water flow channels;
a water pump;
a water accumulator having a water suction outlet connected to said pump,
5 said water accumulator having double walls with at least one first vacuum insulated panel (VIP) encapsulated therebetween;
an auxiliary DC power source selected from (a) a battery and (b) a supercapacitor;

- 4 -

a container for said source, said container having double walls with at least
10 one second VIP encapsulated therebetween;

 a first keep-warm heater disposed between a first inner wall of said water
 accumulator and said at least one first VIP;

 a second keep-warm heater disposed between an inner wall of said
 container and said at least one second VIP;

15 a controller;

 a temperature sensor within said accumulator providing to said controller a
 first signal indicative of temperature in said accumulator;

 a temperature sensor within said container providing to said controller a
 second signal indicative of temperature in said container;

20 said controller causing power from said source (c) to be applied to said
 second keep-warm heater to retain said source at a sufficient temperature so as to
 retain on the order of one-half of the capacity of said source, and (d) to be applied
 to said first keep-warm heater to retain temperature of said accumulator at or above
 freezing temperature.

7. (Original) A fuel cell power plant, comprising:

 a stack of fuel cells, each having water flow channels;

 a water pump;

 a water accumulator having a water suction outlet connected to said pump;

5 a controller;

 a temperature sensor within said accumulator providing to said controller a
 signal indicative of temperature in said accumulator;

 a microwave heater disposed in proximity of water in said accumulator; and
 said controller, in response to said temperature signal indicating that water
10 in said accumulator is frozen, causing, upon startup of said fuel cell power plant,
 power generated by said stack of fuel cells to be applied to said microwave heater,
 thereby to melt the ice in said accumulator.

- 5 -

8. (Original) A fuel cell power plant, comprising:

a stack of fuel cells, each cell having water flow channels;

a water pump;

a water accumulator having a water suction outlet connected to said pump,

5 said water accumulator having double walls with at least one first vacuum insulated panel (VIP) encapsulated therebetween;

an auxiliary DC power source selected from (a) a battery and (b) a supercapacitor;

a container for said source, said container having double walls with at least

10 one second VIP encapsulated therebetween;

a first keep-warm heater disposed between a first inner wall of said water accumulator and said at least one first VIP;

a second keep-warm heater disposed between an inner wall of said container and said at least one second VIP;

15 a controller;

a temperature sensor within said accumulator providing to said controller a first signal indicative of temperature in said accumulator;

a temperature sensor within said container providing to said controller a second signal indicative of temperature in said container;

20 said controller causing power from said source to be applied (c) to said second keep-warm heater to retain temperature of said source at a sufficient temperature so as to retain on the order of one-half of the capacity of said source, and (d) to said first keep-warm heater to retain temperature of said accumulator at or above freezing temperature;

25 a microwave heater disposed in proximity of water in said accumulator;

said controller, in response to said first temperature signal indicating that water in said accumulator is frozen, causing, upon startup of said fuel cell power

- 6 -

plant, power generated by said stack of fuel cells to be applied to said microwave heater, thereby to melt ice in said accumulator.

9-12. (Cancelled)